

## METHOD FOR ENHANCEMENT IN SCREENING THROUGHPUT

## ABSTRACT

[0001] The present invention provides methods and an apparatus for the rapid analysis of data from imaging, spectroscopic, scanning probe, or sensor methods. By application of mathematical transform analysis such as wavelet transform algorithms to one or multi-order data sets obtained from individual samples or sample arrays, the analytical features of the data are preserved while undesired noise is removed, thereby reducing the integration time by more than 10-fold in subsequent measurements. The reduction in integration time enables the high-throughput measurement of combinatorial libraries and rapid dynamic processes, while still providing a signal-to-noise level suitable for a reliable measurement.